

WHAT IS CLAIMED IS:

1. A pressure activated interface 1, comprising:

a textile construction having one or more collapsible cavities (10) and one or more
conductive contact areas (30) associated with one or more leads (20),

5 wherein at least two of said one or more conductive contact areas (30) are in said
one or more collapsible cavities (10) and are elevated relative to said one or more leads
(20).
2. The interface (1) of claim 1, wherein the at least two of said one or more
conductive areas (30) in said one or more collapsible cavities (10) are biased apart.
- 10 3. The interface (1) of claim 2, wherein said bias can be overcome a mechanical
interaction.
4. The interface (1) of claim 3, wherein said mechanical interaction causes said
one or more collapsible cavities (10) to be collapsed and said at least two of said one or
more conductive contact areas (30) to be connected or in conductive communication to
15 close a switch (5).
5. The interface (1) of claim 4, wherein said switch (5) is cooperative with any
of a variety of electronic devices and/or is incorporable in a garment or upholstery (60).
6. The interface 1 of claim 1, further comprising one or more interface graphics
(25) associated with the one or more collapsible cavities (10).
- 20 7. The interface (1) of claim 1, wherein said one or more collapsible cavities
(10) are fashioned a relatively rigid material.

8. The interface (1) of claim 1, wherein said one or more collapsible cavities (10) are reinforced via a support element (13).

9. The interface (1) of claim 8, wherein said support element (13) is injection molded to provide support to said one or more collapsible cavities (10).

5 10. The interface (1) of claim 1, wherein the interface (1) is formed using any conventional textile fabrication method.

11. The interface (1) of claim 1, wherein said one or more conductive contact areas (30) are fashioned from said one or more leads (20).

10 12. The interface (1) of claim 11, wherein said one or more leads (20) are integral with said one or more collapsible cavities (10).

13. The interface (1) of claim 1, further comprising one or more securing mechanisms (55) for selectively holding said one or more collapsible cavities (10) closed.

14. A method for forming a pressure activated interface (1) comprising the steps of:

15 fashioning a textile construction (1) having one or more user intuitive interface graphics (25) patterned thereon;

simultaneously or subsequently fashioning one or more collapsible cavities 10 with one or more conductive contact areas (30) therein; and

simultaneously or subsequently providing said one or more collapsible cavities (10)

with reinforcement.

15. The method of claim 14, wherein said one or more collapsible cavities (10) and said one or more conductive contact areas (30) are raised to accommodate a mechanical interaction.

5 16. The method of claim 14, wherein said one or more conductive contact areas (30) are associated with one or more leads (20), which in turn are operatively connectable with any of a variety of electronic devices and/or systems.

17. The method of claim 14, further comprising the step of incorporating said interface (1) into a garment (60).

10 18. A flexible interface (1) comprising:

a textile construction with one or more collapsible cavities (10) along an edge or perimeter (17) thereof;

a conductive plane (31) in said one or more raised collapsible cavities (10); and

one or more leads (20) with one or more conductive contact areas (30) conductively
15 cooperative with said conductive plane (31) in response to a mechanical interaction.

19. The interface (1) of claim 18, wherein said mechanical interaction causes the collapse of said collapsible cavities (10) thereby bringing said conductive plane (31) and said one or more conductive contact areas (30) into conductive communication to close a switch (5), said switch (5) being cooperative with any of a variety of electronic devices and/or is
20 incorporable in a garment or upholstery (60).